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FEDERAL COMMUNICATIONS COMMISSION

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RICHARD F. SWIFT

JOHN L. TIERNEY

March 23, 1993

Ms. Donna R. Searcy Secretary Federal Communications Commission 1919 M Street, N.W. Washington, D.C. 20554

Re: MM Docket No. 92-317

Dear Ms. Searcy:

On March 19, 1993, the undersigned filed an "Opposition to Motion to Enlarge the Issues" in the above-referenced proceeding on behalf of Sharon A. Mayer. Attached to the Opposition was a copy of the Technical Statement of Louis R. du Treil.

It was noted on the Technical Statement that the original signed Statement of Mr. du Treil would be filed as soon as it was received by counsel. The attached original Technical Statement of Mr. du Treil is therefore submitted for association with the pending Opposition of Sharon A. Mayer.

Very truly yours,

\_\_ A Subsidiary of A. D. Ring, P.C.

## RECEIVED

Technical Statement
Prepared on Behalf of Sharon A. Mayer
Milford, Iowa

MAR 2 3 1993

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This statement has been prepared on behalf of Sharon A. Mayer, applicant for a new FM broadcast station to serve Milford, Iowa, File No. BPH-911004MG, in response to a "Motion to Enlarge the Issues" filed by competing applicant Milford Broadcasting Co.

I have reviewed the Engineering Statement of B. Benjamin Evans accompanying the Motion. Mr. Evans states that "Since the longer sides of the (Mayer) property run east and west, the maximum land-use efficiency would be obtained with one set of guy wires oriented 90° True . . . " That statement is in error, as maximum land use efficiency occurs when the guying layout is rotated ninety degrees. Since this firm prepared the technical portion of Sharon Mayer's application, I am familiar with that proposal and her site. Using the same property dimensions as employed by Mr. Evans, the attached Figure shows the tower quying arrangement for the most efficient use of her If desirable, the tower could be moved as much as 45 feet south of the location shown on the sketch. Her proposed tower, as shown on the sketch, employs a guying distance of 305 feet, or 65.6 percent of the

The Engineering Statement errs in employing the proposed tower height of 468 feet for computing the guying ratio. At that height the uppermost guy wires would attach to the aeronautical beacon rather than to the tower.

\_\_\_\_\_ A Subsidiary of A. D. Ring, P.C.

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tower height, well within the 60 to 70 percent guying ratio range for normal tower cost. A guying ratio from 60 to 70 percent has no substantial effect on tower cost under usual conditions.<sup>2</sup>

Contrary to Mr. Evans' statement, a tower guying ratio falling below 70 percent does not necessarily increase the cost of the tower. There is a wide margin in the permissible tower guying ratio depending on the type and size of the tower and the load it is designed to carry.

It is also possible to employ a cantilever section (the upper-most portion of the tower is free-standing) for a portion of the tower, where the FM antenna is side mounted, as in this case. Under these circumstances, the upper-most tower guy wires would be at approximately 415 feet above ground level, (about 50 feet below the tower top) and with 305 feet for guying distance, the guying ratio is 73.5 percent. Use of a cantilever section does not appreciably change the cost of a tower.<sup>3</sup>

In conclusion, my analysis confirms that erection of Sharon Mayer's proposed guyed tower is quite feasible at her proposed site and is not likely to result in unanticipated costs.

Based on information obtained from LDL Communications, Inc., designer and manufacturer of towers.

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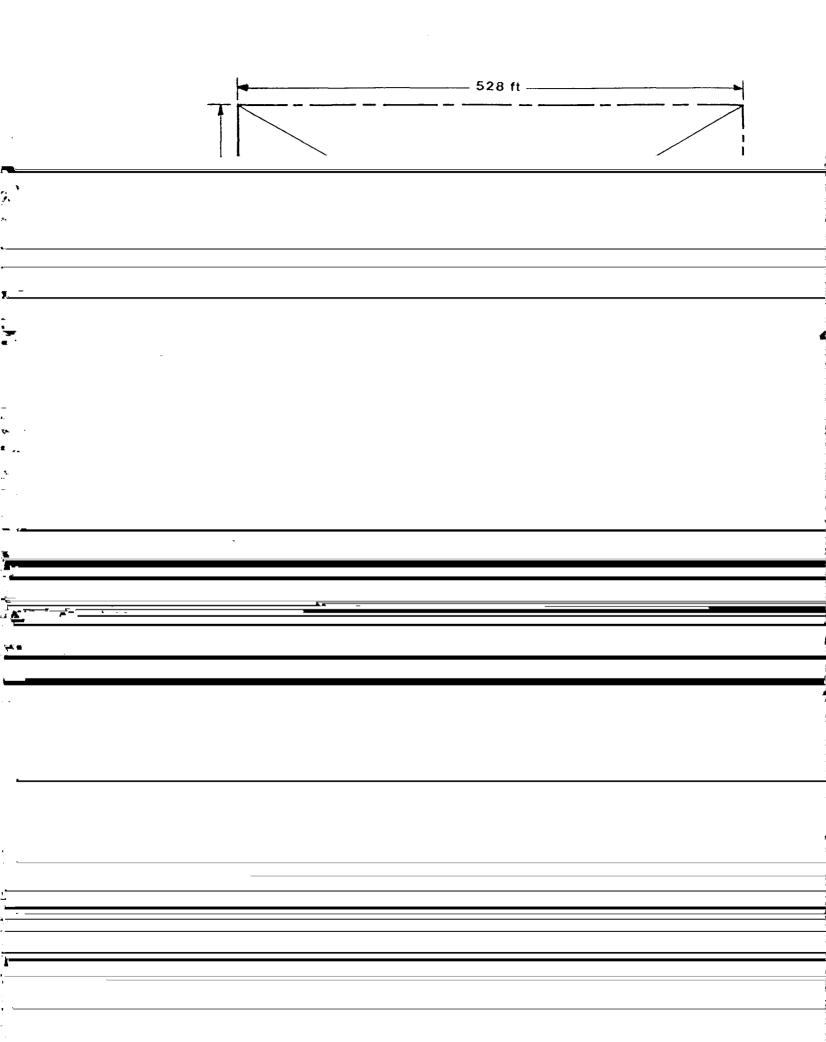
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I have also reviewed the estimated construction costs for her new station as prepared by Sharon Mayer who has utilized new and previously used equipment in that estimate. I am familiar with such costs having participated in the construction of numerous broadcast stations over 30 years of professional experience. It is my belief that her construction proposal is both adequate and realistic.

I declare under penalty of perjury that the foregoing information is true and correct to the best of my knowledge and belief.

Jours Mantiell
Louis R. du Treil

March 18, 1993



## QUALIFICATIONS OF LOUIS ROBERT DU TREIL

Mr. du Treil is a graduate electrical engineer, holding a BSEE from the University of Southwestern Louisiana, Lafayette, Louisiana.

He is a Registered Professional Engineer in the District of columbia (No. 7048) and the State of Louisiana (No. 7977).

He has been actively engaged in consulting engineering since 1959 and prepared numerous engineering exhibits which were accepted by the Federal Communications Commission.

He is a member of the Institute of Electrical and Electronics Engineers (IEEE), member of the Society

